

Appl. No. 09/718,422
Amdt. Dated November 17, 2004
Reply to Office action of September 20, 2004
Attorney Docket No. P12236/040010-898
EUS/J/P/04-6260

Amendments to the Claims:

This listing of Claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) Method of allocating and controlling downlink power in a telecommunication system ~~comprising~~ including a plurality of base stations, each of which providing communication services by means of downlink channels requiring certain portions of allocated downlink power, power and a plurality of user equipments, each of which occupying a downlink channel of at least one base station for usage of said communication services, and each of which sending within common periodical time intervals power requests to said base station in order to adjust the transmission power of its occupied downlink channel, ~~channel, characterized in~~ performing for each base station within said time intervals the ~~steps of~~ steps of:

accumulating (21) said received power requests for each of the occupied downlink channels, ~~channels~~;

estimating (22) the total allocated downlink power level for the base station with regard to the received power requests for each of the occupied downlink channels, ~~channels~~;

accepting (23, ~~No~~) said received power requests for all downlink channels and initiating admission control measures (25) if said estimated downlink power level is below a maximum permitted downlink power level, ~~while;~~ and

rejecting (23, ~~Yes~~) said received power requests for a selected subset of downlink channels and initiating congestion control measures (24) if said estimated downlink power level exceeds a maximum permitted downlink power level.

2. (Currently Amended) Method according to claim 1, ~~characterized in~~ wherein said congestion control measures (24) including the steps ~~of~~ of:

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applying the number of rejected power requests for the present and/or a number of preceding time intervals in one or a combination of operator-definable congestion criterions ~~(241)~~; ;

determining a congestion ~~(242)~~ for the present time interval if one or more congestion criterions are fulfilled, fulfilled; and

If the number of subsequently determined congestions or the number of congestions within several time intervals exceeds a given threshold value τ_2 ~~(245)~~, including the additional steps ~~of~~ of:

selecting a subset of downlink channels to a number of user equipments ~~(246)~~; ;
and

resolving the congestion by releasing the downlink channels of said selected subset ~~(247)~~.

3. (Currently Amended) Method according to claim 2,
~~characterized in comprising the steps of~~

initiating preliminary congestion measures ~~(244)~~ if the number of subsequent congestions or the number of congestions within a given time interval exceeds a first threshold value $\tau_1 < \tau_2$ ~~(243)~~.

4. (Currently Amended) Method according to claim 1,
~~characterized in wherein~~ said admission control measures ~~(25)~~ including the steps of accepting ~~(254)~~ a new user equipment for the base station if the estimated downlink power level is below an operator-definable admission power level ~~(252)~~.

5. (Currently Amended) The method according to claim 1,
~~characterized in comprising the step of~~
selecting a subset of downlink channels ~~(223, 246)~~ to a number of user equipments by applying one or a combination of operator-definable selection criterions.

6. (Currently Amended) Method according to claim 5,

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~~characterized in comprising the step of~~

applying the type of service that is requested from a user equipment as a selection and/or congestion criterion.

7. (Currently Amended) Method according to claim 5,

~~characterized in comprising the step of~~

applying the signal-to-interference ratio of the downlink channels as a selection and/or congestion criterion.

8. (Currently Amended) Method according to claim 5,

~~characterized in comprising the step of~~

applying an operator-definable priority of a user equipment as a selection and/or congestion criterion.

9. (Currently Amended) Method according to claim 5,

~~characterized in comprising the step of~~

applying the number of downlink channels that are assigned to a user equipment from different base stations as a selection criterion.